11 8.48 (23) 12 4.21 4.41

19 11

J

Ch to the the the the

a carbon fiber manufacturing step of manufacturing non-galvanic-corrosive carbon fibers by infusibilizing spun fibers and thereafter carbonizing the fibers at [less than 650°C, but less than 750 °C] not lower than 550 °C, but lower than 800 °C,

a spraying and accumulating step of accumulating said non-galvaniccorrosive carbon fibers onto a plane so as to form a wool-like material with spraying thermosetting resin solution to said fibers, and

a heat-forming step of forming said wool-like material with applying heat.

Please add the following claims:

--44. A method manufacturing a thermal-acoustic insulation material as in claim 10, wherein a temperature of carbonizing the spun fibers is not lower than 650 °C, but lower than 750 °C.--

A thermal-acoustic insulation material comprising a wool-like carbon fiber aggregate composed of carbon fibers bonded together by a thermosetting resin, said thermal-acoustic insulation material wherein,

a galvanic current is 20 λA or lower in a galvanic cell in which an electrode is composed of said thermal-acoustic insulation material, the other electrode is composed of an aluminum plate, and an electrolytic solution is 0.45 wt.% aqueous sodium chloride solution. --

present Present

- --46. A thermal-acoustic insulation material as in claim 45, wherein said galvanic current is $10 \lambda A$ or lower. --
- --47. A thermal-acoustic insulation material as in claim 45, wherein an average fiber diameter of said carbon fibers is 0.5 λ m to 5 λ m, and an average fiber length of said carbon fibers is 1 mm to 15 mm.
- --48. A thermal-acoustic insulation material as in claim 45, which has a bulk density of from 3 kg/m³ --
- --49. A thermal-acoustic insulation material as in claim 45, which has a maximum tensile strength of 1.0g/mm² or higher. --
- --50. A thermal-acoustic insulation material as in claim 45, which has a compression recovery rate of 70% or higher. --
- --51. A thermal-acoustic insulation material as in claim 45, wherein a minimum tensile strength is 0.04 times or higher as said maximum tensile strength and, at the same time, a tensile strength of the orthogonal direction to both the direction of said maximum tensile strength and the direction of said minimum tensile strength is 0.76 times or higher as said maximum tensile strength. --